UNI® interlocking concrete traditional and permeable pavers are manufactured across the United States and Canada by the industry’s leading paver producers. As the nation’s oldest interlocking concrete paver association, UNI-GROUP U.S.A. producers offer unmatched technical and manufacturing expertise with large-scale, heavy-duty industrial, and permeable pavement applications.

Our UNI-Anchorlock® and Optiloc® traditional pavers and Ecoloc® and Eco-Optiloc® permeable pavers feature unique, patented anchor-interlocking shapes that offer superior resistance to twisting or tipping under heavy vertical loading, as well as forces from horizontal stresses. These shapes were designed for mechanical installation for cost savings on large scale projects and are ideal for heavily-loaded and trafficked commercial, municipal, and industrial pavement applications. An added advantage is that these traditional and permeable designs be used together where a combination of standard and permeable pavements are required.

Our Eco-Priora® permeable paver is offered in rectangular and square shapes with patented interlocking spacers, which offer added structural stability under vehicular loads. Its flat surface profile makes it an ideal product for large-scale pedestrian pavements such as municipal and institutional plazas.

And our original permeable paver, UNI-Eco-Stone®, was North America’s first permeable paver, introduced in 1989 and still a popular choice for parking applications.
Clockwise from top: Somerville, MA - Optiloc - Unilock New England
Battle Command Training Center Test Pad, Carson, CO - Eco-Stone - Pavestone Company
Canadian Tire, Toronto, ON - Ecoloc - Unilock, Ltd.
Residential Street - UNI-Anchorlock - Unilock Chicago
Fire Station Grand Traverse, MI
Eco-Optiloc® - Unilock Michigan
All UNI® pavers are manufactured to meet or surpass ASTM C-936 industry standards, using a zero-slump concrete mixture subjected to high-frequency vibrations to achieve minimum 8,000 psi and maximum 5% absorption.

The high-quality of UNI® pavers and their advanced interlocking technology make them ideal for a wide array of residential, commercial, municipal, institutional, and industrial pavement applications.

- Plazas, courtyards and sidewalks
- Office, condo and retail parking lots
- Large-scale municipal and arena parking
- Low-speed streets and entryways
- Airport maintenance and hangar areas
- Depots, industrial yards, and rail yards
- Loading docks, marinas and ports
Clockwise from top: Streetscape - Optiloc - Unilock
Rickenbacker Causeway Park - Eco-Stone and Uni-Decor - Coastal
Rhode Island Public Transit Authority - Eco-Optiloc - Unilock New England
UNI® pavers offer numerous advantages over other types of pavement materials.

- Exceptional durability and resistance to severe loads
- Withstands wheel-turning movements without surface degradation or raveling
- High density and low absorption
- Easy access to underground utilities for repairs and allows for easy reinstatement
- Ability to withstand temperature extremes
- Low life-cycle costs - long pavement life
- Superior skid-resistance
- Resistance to deicing salts
- Accommodates base or subgrade settlement
- Can be trafficked immediately after installation and compaction
Office, Condo & Commercial Pavements

Clockwise from top: Avenue 500 - Optiloc - Unilock
Howland Hook Container Terminal, Port of NY/NJ - Ecoloc - Unilock New York
Buckingham Fountain, Chicago, IL - Eco-Priora - Unilock Chicago
Drake Hill Commons, North Hampton, NH - Eco-Stone - Ideal Concrete Block Co.
Institutional and Industrial Pavements

Clockwise from top: Port of Mobile, AL - UNI-Anchorlock - BlockUSA
Stone Mountain Park, GA - Ecoloc - Pavestone Company
Fort Morgan, CO - Eco-Priora - Pavestone Company
Dominican University, River Forest, IL - Ecoloc - Unilock Chicago
First introduced in 1989, the Eco-Stone Family of Permeable Pavers offers a proven solution to stormwater runoff. They are sustainable, economical, durable, and beautiful.

- Can provide up to 100% infiltration on site and accommodates a variety of stormwater objectives
- Allows better land-use planning especially in high-density areas
- Reduces impacts on combined storm/sewer systems
- Can save money by combining parking and detention in one cost-effective system
- Mitigates runoff volumes and peak flows, reduces pollutants, addresses water quality/quantity
- Reduces heat-island effects and need for de-icing salts
- EPA-recommended BMP
- Contributes to groundwater recharge
- Qualifies for LEED® and other green accreditation
- Maintain with street sweeping/vacuuming
Pavement design varies with climate, available construction materials, design methods, soil conditions, and traffic loading. A qualified engineer should be consulted on heavy-duty and permeable pavement applications to ensure desired results. Please see the last page for industry references and guidance for the design of traditional and permeable interlocking concrete pavements.
Design References and Guidance

For design guidance and references, please refer to the references listed below, which may be downloaded via our website at www.uni-groupusa.org. For a list of our current manufacturers, please visit the website.

- Lockpave® Pro structural design software/PC-SWMM™ PP hydrologic design software
- Applications for Concrete Paving Block in the United States Market - Rollings & Rollings
- The UNI Eco-Stone® Family of Permeable Interlocking Concrete Pavers Design Guide and Research Summary
- Pier IX Terminal Case Study - UNI-GROUP U.S.A.
- Sterling Sugar Refinery - UNI-GROUP U.S.A.
- Port of Tampa Case Study - UNI-GROUP U.S.A.
- Eco-Stone Family of Permeable Interlocking Concrete Pavers Project Profiles - UNI-GROUP U.S.A.
- Interlocking Concrete Block Pavements At Howland Hook Marine Terminal - Walter E. Sieglen Jr. and Harald von Langsdorff
- Test Results on the Stiffness of Paved Surfaces - Brian Shackel, Ph.D., Johann Litzka, M. Zieger
- The Design & Construction of Interlocking Concrete Pavements - Brian Shackel, Ph.D.
- Airfield Pavement Design with Concrete Pavers - Roy D. McQueen, P.E., John Knapton, Ph.D., John Emery, David R. Smith
- Port and Industrial Pavement Design with Concrete Pavers - John Knapton, Ph.D.
- Structural Design Solutions for Permeable Pavements - John Knapton, Ph.D., David Morrell, Mihailo Simeunovich
- Permeable Shoulders With Stone Reservoirs - David K. Hein, P.Eng., Eric Strecker, P.E., Aaron Poresky, P.E., Dr. Robert Roseen, P.E., Marie Venner - Requested by: American Association of State Highway and Transportation Officials (AASHTO)
- Permeable Interlocking Concrete Pavements - Interlocking Concrete Pavement Institute
- ASCE/ANSI Standard 58-10 - Structural Design of Interlocking Concrete Pavements for Municipal Streets and Roadways

This brochure provides an overview of the types and scope of traditional and permeable interlocking concrete pavements that are being designed and built in North America and is only to be used as a guideline. It is not intended to be relied upon as an industry standard or specification and is not intended to replace the judgement or expertise of professional engineers, architects or landscape architects, who should be consulted in the design and construction of permeable pavements. Design and construction will vary with local regulations and specifications, environmental conditions, materials, and established construction methods for that area.

Thank you to the Interlocking Concrete Pavement Institute for use of some project photos.

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